Doctors' age at domestic partnership and parenthood: cohort studies

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DECLARATIONS

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Summary

Objective To report on doctors' family formation.

Design Cohort studies using structured questionnaires.

Setting UK.

Participants Doctors who qualified in 1988, 1993, 1996, 1999, 2000 and 2002 were followed up.

Main Outcome Measures Living with spouse or partner; and doctors' age when first child was born.

Results The response to surveys including questions about domestic circumstances was 89.8% (20,717/23,077 doctors). The main outcomes – living with spouse or partner, and parenthood – varied according to age at qualification. Using the modal ages of 23–24 years at qualification, by the age of 24–25 (i.e. in their first year of medical work) a much smaller percentage of doctors than the general population was living with spouse or partner. By the age of 33, 75% of both women and men doctors were living with spouse or partner, compared with 68% of women and 61% of men aged 33 in the general population.

By the age of 24–25, 2% of women doctors and 41% of women in the general population had a child; but women doctors caught up with the general population, in this respect, in their 30s. The specialty with the highest percentage of women doctors who, aged 35, had children was general practice (74%); the lowest was surgery (41%).

Conclusions Doctors are more likely than other people to live with a spouse or partner, and to have children, albeit typically at later ages. Differences between specialties in rates of motherhood may indicate sacrifice by some women of family in favour of career.

Introduction

Key stages of doctors' training, in their 20s and early 30s, coincide with times when people typically make decisions about family formation and first having children. It is important for employers, workforce planners and senior doctors to know about typical patterns of family formation by doctors at different ages and career stages. Living with a spouse or partner is likely to

non-financial interests that may be relevant to the submitted work

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Guarantor

All the authors are guarantors

Ethical approval

This study was approved by the National Research Ethics Service, following referral to the Brighton and Mid-Sussex Research Ethics Committee in its role as a multicentre research ethics committee (ref. 04/Q1907/48)

Contributorship

MJG and TWL conceived and directed the cohort studies, conceived the idea for this paper and planned its content. JMD analysed the data with statistical input from TWL. MJG and JMD wrote the first

reduce doctors' scope for easy geographical mobility and for ease of working unsocial hours. For workforce planning, it is important to know the ages and stages at which women doctors may take maternity leave. It is also of interest to know how doctors compare with the general population in respect of family formation and parenthood; and whether there is any evidence to suggest that some doctors sacrifice parenthood in the pursuit of their medical careers. We report on the ages at which UK-trained doctors marry or live with a partner; and the ages at which they have their first child. We compare men and women, and doctors practising in different clinical specialties.

Methods

For many years the UK Medical Careers Research Group (MCRG) has conducted longitudinal studies of all UK medical graduates from all UK medical schools in particular years of qualification to seek information about doctors' early choice of eventual career, their career progression and career destinations, and factors that have influenced career choice and progression.[1–3] We use questionnaires, with structured and semistructured questions, as described in detail elsewhere.[1,2] In this report, we present data on the cohorts who qualified in 1988, 1993, 1996, 1999, 2000 and 2002, followed to the year of our last survey of each cohort (for details, see Appendix A available online at http://jrsm.rsmjournals.com/lookup/suppl/doi:10.1258/jrsm.2012.120016/-/DC1).

Demographic information, including sex, marital status and ages of children was collected at the time of the doctors' first response to our surveys and in successive surveys thereafter. Family formation is substantially influenced both by age and by time from medical qualification (see Results). Accordingly, for some analyses, respondents were grouped not only by chronological age at the time of the survey, but also by age at qualification, with particular emphasis on ages 23–24 years at qualification (as the modal ages at qualification). Doctors' rates of marriage or cohabitation (which, for simplicity, we term 'partnership formation'), and age when first becoming a parent, were compared with rates in the general population of the same age and from the same birth cohorts, using national statistics on marriage and childbirth, and cohabitation data, published[4–7] or supplied to us by the Office for National Statistics for the population of England and Wales. We compared doctors and the general population not only by age, but also by birth cohort because there are strong generational effects in family formation.

We have more data on family formation and parenthood in some surveys of some cohorts than others, depending on which questions were included in which surveys at the time. To maximize the data, for each topic in this paper we used all cohorts and surveys for which we had data covering the topic (as detailed below). There are some differences between even quite finely graded ages, and between cohorts, in family formation and parenthood, and we have dealt with this by grouping data quite narrowly (e.g. doctors aged 24–25 years).

Chi-squared tests were used to test for significant differences in the percentages living with spouse or partner, having children or dependent adults, between men and women, and the chi-squared test for linear trend was used to assess trends over time. Kaplan–Meier survival analysis (taking first childbirth as the outcome in place of survival) was used to explore women's and men's age at first becoming a parent.

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Results

Cohort numbers and response rates

There were 24,365 doctors in the six cohorts from 1988 to 2002. Of these, there were 952 whose address could not be traced, 254 non-participants, 16 who had never registered and 66 deceased. Of the remaining 23,077, 20,717 responded to at least one survey that included questions about

draft. All contributed to the final draft

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We would like to thank the Office for National Statistics for data supplied on marriage and cohabitation from the 1996, 2003 and 2007 population projections, from which we were able to estimate a combined rate (see Appendix B available online at http://jrsm.rsmjournals.com/lookup/suppl/doi:10.1258/jrsm.2012.120016/-/DC2) for living with spouse or partner for comparison with UK MCRG data on doctors. We would also like to thank Emma Ayres who administered the surveys, Janet Justice and Alison Stockford for their careful data entry, and all the doctors who participated in the surveys

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family circumstances (89.8%). Appendix A (available online at http://jrsm.rsmjournals.com/lookup/suppl/doi:10.1258/jrsm.2012.120016/-/DC1) shows numbers and response rates by cohort.

Partnership formation: all respondents one year after qualification

This analysis was restricted to the cohorts of 1996, 1999, 2000 and 2002. Data on the earlier cohorts, in the first year after qualification, have been previously published and our questions were confined to marriage (i.e. we did not ask about cohabitation).[1] Respondents' status as 'living with spouse or partner' or 'single' was given by 10,870 of the 11,409 respondents to the Year 1 survey of these cohorts (95.3%). In all, 24.1% of doctors (2615/10,870) in the combined cohorts were living with a spouse or partner in their first year after qualification. A significantly higher percentage of women than men were living in a partnership but the differences were small (combined cohorts: men 22.5% (1053/4670), women 25.2% (1562/6200), $\chi^2_1 = 10.2$, $P = 0.001$).

Partnership formation, comparing doctors with the general population

For this analysis, we had partnership data for the cohorts of 1993, 1996, 1999, 2000 and 2002. The most typical ages at qualification were 23 and 24 – 72.3% were 23 or 24 at the time of qualification (14,021/19,405) – and we confined the analysis to doctors who qualified at these ages. We did this to ease comparisons with the available data about the general population at the same ages and in the same birth cohorts. Table 1 shows comparisons between doctors and the general population of the same age and birth cohorts (cohorts were compared, where MCRG and Office for National Statistics (ONS) figures on cohabitation were both available; see Appendix B available online at http://jrsm.rsmjournals.com/lookup/suppl/doi:10.1258/jrsm.2012.120016/-/DC2). At the ages of 24–25 (i.e. typically, in their first year of medical work) women doctors were a little more likely to be in a partnership than men (21.2%, 18.8%, respectively, Table 1). Rates of partnership rose rapidly with increasing age: rates for women and men doctors aged 26–27 were, respectively, 48% and 50%. At 28–29 years of age, 64% of both the women and the men doctors were living with partners. At 30–31, the rates for women and men were 74% and 77%; and at 34–36 they were 83% and 89%.

At ages 24–25 years the partnership rates for doctors were far lower than those in the general population: 21% of women doctors were living with a spouse or partner compared with 46% of women in the general population (Table 1). The corresponding figures for men doctors, and for men in the general population, were 19% and 31%. By the ages of 30–31, partnership rates for doctors, both for women and men, had overtaken those in the general population by a substantial amount (Table 1). At the age of 34–36, 83% of the women doctors were married or living as if married compared with 71% of women in the general population; and 89% of the men doctors were living with a spouse or partner compared with 68% of men in the general population.

It is useful to consider family formation by years since qualification as well as by age. As noted above, approximately a quarter of all respondents in the combined cohorts were living with a spouse or partner in their first year after qualification. Three years after qualification, 48% of women and 49.6% of men respondents were living with a spouse or partner. Five years after, the percentages for women and men doctors living with a spouse or partner were both 64% (Table 1).

Parenthood: women doctors compared with women in the general population

Data were available for these comparisons from the cohorts of 1988, 1993, 1996, 1999, 2000 and 2002. Table 2 shows the cumulative percentages of women aged 23–24 on qualification, who had at least one child at each year of age from 25 years up to 35, and 40 years, by qualification cohort, and, for comparison, national percentages for women from the same birth cohorts and at the same ages.[5] There were significant differences between the cohorts in the rate of parenthood: for example, using Kaplan–Meier survival analysis the percentages of women doctors who had their first child by the age of 30 were 39.3% for

the 1988 cohort, 31.2% for the 1993 cohort, 28.7% for the 1996 cohort, 24.5% for the 1999 cohort and 29.5% for the 2000 cohort (Mantel–Cox test for equality of survival distributions: $\chi^2_5 = 37.5$, $P < 0.001$).

The percentage of women doctors who had children when they were young was, as expected, much lower than that in the general population of women (Table 2). For example, 2.3% of the women of the 1988 cohort and 1.2% of the women of the 2002 cohort had a child by the age of 25; in the general population of women the percentages in the corresponding cohorts were 41% and 35%, respectively. By the age of 28, 14% of the women of the 1996 cohort and 13% of the 2002 cohort had at least one child; the corresponding percentages for women in the general population were 50% and 48%. The women doctors gradually caught up with, and then overtook, the women in the general population: by the age of 35 years, 71% of women doctors of the 1988 cohort and 74% of women in the general population had a child. By 40, the corresponding figures were 83% of women doctors of the 1988 cohort and 79% of women in the general population (Table 2).

Table 1
Percentages of respondents aged 23 or 24 on qualification who were living with spouse or partner at certain ages after qualification, compared with the general population in England and Wales who were from the same birth cohorts, by year of qualification and sex

Year since qualification and age	*Percentages living with spouse or partner*	
	Women (%)	*Men (%)*
Year 1, Age 24–25		
Doctors of 2002 cohort	21.2	18.8
General population (2003 projection)	45.9	30.5
Year 3, Age 26–27		
Doctors of 1993 cohort	48.0	49.6
General population (1996 projection)	63.5	47.8
Year 5, Age 28–29		
Doctors of 2002 cohort	64.0	63.7
General population (2007 projection)	61.9	51.6
Year 7, Age 30–31		
Doctors of 1996 cohort	73.5	77.2
General population (2003 projection)	67.8	60.4
Doctors of 2000 cohort	75.5	77.3
General population (2007 projection)	66.1	58.0
Year 8/9, Age 31–33		
Doctors of 1999 cohort	75.4	75.2
General population (2007 projection)	67.8	61.1
Year 11/12, Age 34–36		
Doctors of 1996 cohort	82.6	88.6
General population (2007 projection)	71.3	67.8

Parenthood: age at first childbirth and age at qualification, men and women

Using data from the same cohorts as in the previous section, we broadened the analysis to compare age at first childbirth by grouped age at qualification at ages ≤22, 23–24, 25–29 and ≥30 years. Table 3 shows cumulative percentages for age at first childbirth for men and women in the combined cohorts, by age at qualification. In general, those who qualified at a younger age started their families earlier (comparing the four groups, Mantel–Cox test for equality of survival distributions: for women, $\chi^2_3 = 105.5$, $P < 0.001$; for men, $\chi^2_3 = 168.1$, $P < 0.001$). Men and women aged 30 or over at qualification were the least likely of all age groups at qualification to have had children by the age of 35: only 44.5% of women and 45.8% of men had children by this age, compared with 66% of women and 68% of men who qualified at the ages of 23–24.

A higher percentage of men than women had children at almost every chronological age and in almost every age-at-qualification group. For example, in the group aged 23–24 at qualification, a higher percentage of men than women at every age up to 35 had children (Mantel–Cox test comparing men and women aged 23–24 on qualification: $\chi^2_1 = 16.1$, $P < 0.001$; Table 3). Table 4 and Figure 1 illustrate this for men and women in the 1988 cohort and show comparisons between both men and women in the same birth cohort and with women in the general population (Mantel–Cox, comparing men and women of the 1988 cohort who were aged 23–24 on qualification: $\chi^2_1 = 1.7$, $P = 0.19$). Comparable data for men in the general population are not available.

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Table 2

Percentage of women doctors by birth cohort, and percentage of women from the same birth cohorts in the general population of England and Wales*, who had at least one child by each age: birth cohorts (and doctors' year of qualification, confined to those aged 23–24 at qualification)

Age (years)	*Birth Cohort*											
	1963–64 (1988s)		*1968–69 (1993s)*		*1971–72 (1996s)*		*1975–6 (1999s)*		*1976–77 (2000s)*		*1978–79 (2002s)*	
	Doctors†	*Population*	*Doctors*†	*Population*	*Doctors*†	*Population*	*Doctors*†	*Population*	*Doctors*†	*Population*	*Doctors*†	*Population*
25	2.3	41	3.2	40	2.3	37	2.1	35	1.0	35	1.2	35
26	5.4	46	5.3	44	5.6	41	4.2	39	3.5	39	3.9	39
27	10.3	50	7.1	49	10.1	46	7.5	43	6.3	43	7.7	43
28	17.8	55	12.2	53	14.2	50	12.5	47	12.0	48	13.3	48
29	25.2	59	22.2	57	21.3	54	16.8	52	20.9	53		
30	39.3	63	31.2	62	28.7	58	24.5	57	29.5	57		
31	48.0	66	42.3	65	37.5	62	33.5	61				
32	56.1	69	51.3	68	47.4	66						
33	62.8	71	55.0	71	55.5	69						
34	68.8	73	61.7	73	62.8	71						
35	70.8	74	67.1	75								
40	83.2	79										
Total *n*†	1460	Per 100	1523	Per 100	1577	Per 100	1585	Per 100	1512	Per 100	1676	Per 100

*Office for National Statistics; Birth Statistics Series FM1 no 37; Table 10.3. Newport, 2010. See http://www.statistics.gov.uk/downloads/theme_population/FM1-37/FM1_37_2008.pdf

†Results of Kaplan–Meier survival analysis: percentages are of respondents aged 23 or 24 at qualification for whom it was possible to calculate age at first childbirth, (i.e. respondent's date of birth and age of oldest child at particular survey times were known), plus those who remained childless up to the age of 35

Table 3

Age at first childbirth for women and men doctors aged up to 35, by grouped age at qualification: 1988–2002 cohorts combined (censored Kaplan–Meier survival analysis)

Women	*Age at qualification group*				*Men*	*Age at qualification group*			
	≤22	*23–24*	*25–29*	*≥30*		*≤22*	*23–24*	*25–29*	*≥30*
21	0.5	0.4	0.8	2.7	21	0.9	0.7	0.4	0.9
22	0.7	0.5	1.1	3.5	22	1.3	0.9	0.6	1.7
23	1.2	0.8	1.3	4.3	23	1.8	1.3	0.9	2.0
24	1.5	1.1	2.0	5.8	24	2.7	2.1	1.2	2.8
25	4.4	1.9	2.5	6.6	25	6.2	3.5	2.2	3.4
26	7.8	3.9	3.8	8.2	26	10.5	5.9	3.3	4.6
27	14.4	7.3	5.4	11.3	27	15.3	9.9	5.3	6.3
28	22.4	12.3	8.9	13.2	28	24.1	15.6	8.9	8.3
29	34.7	19.9	13.8	15.6	29	37.4	23.6	13.3	11.1
30	42.7	28.8	20.7	16.7	30	46.2	32.9	20.7	14.5
31	52.0	38.2	29.7	21.0	31	55.2	42.2	28.5	21.4
32	56.3	47.3	39.0	23.0	32	62.8	50.0	38.6	28.9
33	59.6	55.1	47.6	29.1	33	65.9	57.1	44.8	36.8
34	62.3	61.2	55.0	36.7	34	70.3	62.9	52.4	39.8
35	63.5	66.1	59.9	44.5	35	75.5	67.9	58.8	45.8
Total	$n = 731$	$n = 6928$	$n = 1417$	$n = 257$	Total	$n = 450$	$n = 5776$	$n = 1632$	$n = 351$

Results of Kaplan–Meier survival analysis: percentages are of respondents aged 23 or 24 at qualification for whom it was possible to calculate age at first childbirth, (i.e. respondent's date of birth and age of oldest child at particular survey times were known), plus those who remained childless up to the age of 35

Age at first childbirth by mainstream specialty: men and women

The distribution of age at first childbirth for men and women in the combined cohorts varied according to the doctors' mainstream specialty (Table 5, Figure 2; Mantel–Cox overall $\chi^2_5 = 270.8$, $P < 0.001$; for men: $\chi^2_5 = 82.0$, $P < 0.001$; for women: $\chi^2_5 = 263.9$, $P < 0.001$). Percentages of women and men doctors who had become parents by the age of 35 were 74% and 75%, respectively, for those in general practice; 64% and 71% for those in paediatrics; 61% and 56% in psychiatry; 55% and 62% in anaesthetics; 50% and 62% in general medicine and 41% and 69% for those in the combined surgical specialties. For women, the specialties with the highest percentages of doctors with children were general practice (74% of women had children by the age of 35) and paediatrics (64%), and that with the lowest was surgery (41%). For men, the specialties with the highest percentages of doctors with children were general practice (75% of men had children by the age of 35), followed by paediatrics (70%) and surgery (69%), and that with the lowest was psychiatry (56%).

Partnership at 35 years of age by specialty

To add context to the findings on parenthood at the age of 35 by specialty, we analysed the data on partnership at 35 by specialty (Table 6). In every mainstream specialty, women were less likely than men to be living with a spouse or partner. Rates of partnership were higher among general practitioners than in other specialties (90% of women, 94% of men) but, even in general practice, women were significantly less likely than men to be living with a spouse or partner ($\chi^2_1 = 9.03$, $P = 0.003$). Women in the hospital medical specialties were significantly less likely than men to be living with spouse or partner (women 81%, men 88%, $P = 0.02$), as were women in the surgical specialties (women 81%, men 90%, $P = 0.02$). Women doctors in general practice were more likely to be living with a spouse or partner than were other women doctors (90% compared with 82%, $P < 0.001$).

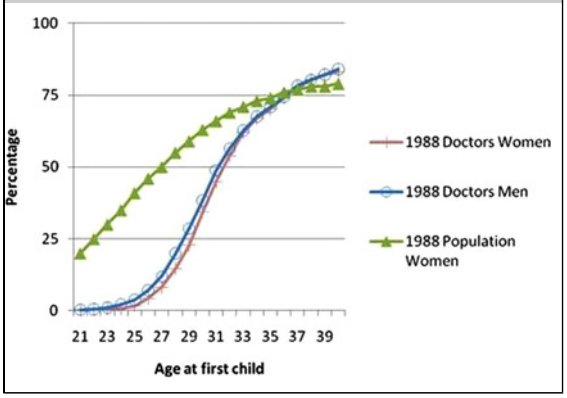
Table 4
Percentage of men and women doctors in the 1988 cohort who were aged 23 or 24 on qualification, and percentage of women from the same birth cohort in the general population of England and Wales*, who had their first child by each age (Kaplan–Meier survival analysis)

Age	*Percentage who had their first child by each age*		
	1988 Doctors Women	*1988 Doctors Men*	*1988 Population Women*
21	0.3	0.3	20
22	0.4	0.5	25
23	0.7	1.1	30
24	0.8	2.2	35
25	1.7	3.8	41
26	4.2	7.0	46
27	8.1	11.9	50
28	14.7	19.9	55
29	22.7	28.6	59
30	34.3	38.3	63
31	44.8	48.8	66
32	53.9	56.3	69
33	62.0	62.6	71
34	67.0	67.6	73
35	70.1	70.9	74
36	74.2	74.3	76
37	77.7	78.3	77
38	80.3	80.4	78
39	82.1	82.2	78
40	83.2	84.1	79
$n^{\dagger}$	858	1278	Per 100

*Office for National Statistics; Birth Statistics Series FM1 no 37; Table 10.3. Newport, 2010. Estimated average number of first live-born children: age and year of birth of woman, 1920–1993. (See http://www.statistics.gov.uk/downloads/theme_population/FM1-37/FM1_37_2008.pdf [last accessed 14 July 2010])
†*n* = those who responded to at least one survey containing questions about children

Among men doctors, 94% of general practitioners compared with 89% of other men doctors were living with a spouse or partner; $P < 0.001$. Women in the hospital medical specialties, and men in psychiatry, had significantly lower rates of partnership than did other women doctors and other men doctors ($P = 0.02$ in each case).

Figure 1
Percentage of men and women doctors in the 1988 cohort who were aged 23 or 24 on qualification, and percentage of women from the same birth cohort in the general population of England and Wales, who had their first child by each age (Kaplan–Meier survival analysis)



Discussion

Comparing doctors with the general population, doctors have lower rates of partnership formation in their 20s and higher rates than the general population by their mid-30s. Thus, a medical career does not adversely impact on the likelihood of eventual domestic partnership.

Women doctors had much lower rates of parenthood in their 20s than women in the general population but caught up with the general population in this respect in their 30s. We found that, just as the trend in the UK generally is towards later childbirth, UK women doctors are postponing having children until older ages.

Percentages of men doctors who became parents were generally a little higher than those of women doctors. However, the percentages of both women and men doctors who became parents varied across specialties. For example, the percentages of women and men in general practice who were parents by the age of 35 years were very similar (74% and 75%, respectively). The percentage of women surgeons who were parents by the age of 35 (41%) was substantially lower than that of men surgeons (69%), as was that of women who were hospital physicians (50% of women, 62% of men).

Table 5

Percentages* of women and men doctors who had their first child by each age, up to age 35, within mainstream specialties; 1988 to 2002 cohorts combined (censored Kaplan–Meier survival analysis)

Women *Age*	*Specialty mainstream*						*Men* *Age*	*Specialty mainstream*					
	General Practice	*Paed-iatrics*	*Psych-iatry*	*Anaes-thetics*	*General Medicine*	*Surgical specialties*†		*General Practice*	*Paed-iatrics*	*Psych-iatry*	*Anaes-thetics*	*General Medicine*	*Surgical specialties*†
21	0.8	0.3	1.8	0.5	0.5	0.3	21	1.5	1.2	N/A	0.4	0.4	0.7
22	1.1	0.3	1.8	0.5	0.7	0.3	22	1.7	1.2	0.7	0.6	0.4	1.1
23	1.4	0.3	2.1	0.5	0.7	0.3	23	2.8	1.8	0.7	1.1	0.8	1.3
24	2.1	0.6	2.4	0.5	0.8	0.3	24	3.7	3.6	2.1	1.7	1.3	2.2
25	3.0	0.9	4.7	0.5	1.6	0.6	25	5.6	6.0	4.9	3.0	2.1	3.0
26	5.3	2.2	8.6	0.8	2.3	1.6	26	9.6	8.3	5.9	4.9	3.6	4.6
27	10.4	5.3	11.8	1.1	4.0	2.6	27	14.5	12.5	8.7	9.9	6.3	6.3
28	17.6	11.6	15.7	2.7	5.9	4.2	28	22.0	17.9	13.7	14.0	11.6	10.7
29	26.9	18.4	20.8	7.7	9.0	7.7	29	30.8	24.6	20.0	21.0	18.4	16.6
30	38.1	29.0	26.8	12.5	15.5	12.0	30	40.9	34.5	26.5	27.9	26.8	26.2
31	48.4	36.2	37.3	19.6	24.4	18.1	31	49.0	48.9	34.6	37.3	36.2	35.7
32	56.4	44.7	44.4	28.0	31.9	23.0	32	58.2	55.2	41.2	45.0	44.5	45.9
33	64.2	49.8	50.5	37.7	39.8	33.3	33	64.7	62.0	46.3	52.4	50.7	52.7
34	69.5	54.1	54.7	46.5	46.4	37.8	34	70.1	64.0	51.7	56.7	57.2	59.2
35	74.0	63.8	60.5	54.5	49.9	41.4	35	74.5	70.5	56.4	61.6	61.8	68.8
Total	$n = 2267$	$n = 338$	$n = 323$	$n = 731$	$n = 375$	$n = 313$	Total	$n = 1277$	$n = 286$	$n = 168$	$n = 758$	$n = 467$	$n = 914$

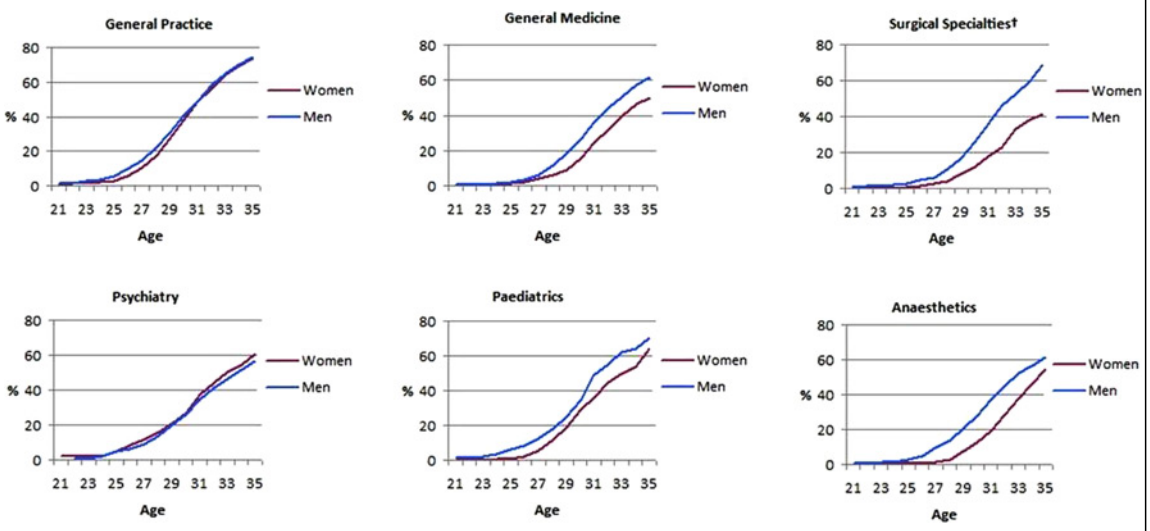
Test of equality of survival distributions between men and women within mainstreams (log rank Mantel–Cox chi-square): general practice $\chi^2_1 = 1.8$, $P = 0.2$; paediatrics $\chi^2_1 = 4.8$, $P = 0.03$; psychiatry $\chi^2_1 = 0.8$, $P = 0.4$; anaesthetics $\chi^2_1 = 17.9$, $P < 0.001$; general medicine $\chi^2_1 = 25.4$, $P < 0.001$; surgical specialties $\chi^2_1 = 44.4$, $P < 0.001$

*Results of Kaplan–Meier survival analysis: percentages are for respondents for whom it was possible to calculate age at first childbirth, i.e. date of birth and age of oldest child at particular survey times were known, in addition to specialty mainstream at time of latest survey

†General surgery and other surgical specialties combined

Figure 2

Percentages of women and men doctors who had their first child by each age, up to age 35, within mainstream specialties; 1988 to 2002 cohorts combined (censored Kaplan–Meier survival analysis). Results of Kaplan-Meier survival analysis: percentages are for respondents for whom it was possible to calculate age at first childbirth, i.e. date of birth and age of oldest child at particular survey times were known, in addition to specialty mainstream at time of latest survey. †General surgery and other surgical specialties combined



A major strength of this study is its size and national coverage. The longitudinal data on marriage or living with a partner, and age at first childbirth, of doctors in different specialties are unique in the UK and, where available, we show equivalent data on the general population for comparison.

A potential weakness is that, though our response rates are high, we cannot take account of any non-responder bias. It is possible that doctors who are in partnerships, or who have children, are more likely, or maybe less likely, to reply to us. A weakness is that we do not have data on population rates of partnership and parenthood by social class. It is entirely possible that the low rates of domestic partnership in young doctors, and the low rates of early parenthood, reflect the generality of professionals in postponing partnership and parenthood. Perhaps surprisingly, though we tried, we could not obtain data on these factors by social or professional groups in the general UK population. We have no data on separation or divorce.

Further work is needed, in more detailed study designs than ours, to determine whether doctors in some specialties, particularly women doctors, decide not to have children as part of decision-making to put career before family. Specifically, we cannot account fully for differences between specialties in the percentage of doctors who become parents. It is possible and indeed likely that expectations about family life, and about having children, influence specialty choice for some doctors. The fact that parenthood rates are high in general practice for both women and men confirms that doctors view general practice as family friendly not only for women but also for men. It is possible that doctors' personalities and temperaments incline them both to want children and to want to work in particular branches of medicine. For example, a relatively high percentage of both women and men in paediatrics have children of their own. It is also possible that doctors who intend to have children make different specialty choices than doctors who do not. It is possible, for example, that doctors who do

Table 6
Percentages of women and men doctors who were married or living with partner at the age of 35 years, by specialty

Specialty	*Women*	*Men*
General practice	90.0 (882/983)	94.1 (607/645)
Paediatrics	80.5 (91/113)	86.7 (65/75)
Psychiatry	83.0 (122/147)	84.4 (108/128)
Anaesthetics	83.0 (122/147)	90.0 (197/219)
Medical specialties	81.4 (241/296)	88.3 (310/351)
Surgical specialties	81.1 (77/95)	90.2 (313/347)
Total	86.2 (1535/1781)	90.7 (1600/1765)

For description of significant findings, see text in Results on 'partnership at 35 years of age by specialty'.

not intend to have children, anyway, are more likely than others to commit themselves to a working life in surgery or the hospital medical specialties. However, the large gap between women and men in the percentage who choose a career in surgery,[3] and the gap between women and men in surgery in the percentage who have children, suggests that decision–making in women and men is different in these respects. The gap suggests that a percentage of women in some specialties have taken the view that their specialty career is not compatible with having children. Further work is needed into whether some doctors decide not to have children because of their career when they would otherwise wish to do so.

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